

CLAIMS

1. A control system for a hydrogen addition internal combustion engine that uses hydrocarbon fuel and hydrogen gas as combustion fuel, said control system comprising:

fuel property judgment means for judging the property of hydrocarbon fuel; and

addition ratio increase means that, when the hydrocarbon fuel is found to be heavy, increases the ratio of hydrogen gas addition to the hydrocarbon fuel.

2. The control system for said hydrogen addition internal combustion engine according to claim 1, wherein said addition ratio increase means ensures that said ratio of hydrogen gas addition increases with an increase in the degree of hydrocarbon fuel heaviness.

3. The control system for said hydrogen addition internal combustion engine according to claim 1 or 2, wherein said fuel property judgment means judges the property of the hydrocarbon fuel in accordance with the engine speed prevailing immediately after startup, an ignition timing feedback correction value prevailing immediately after startup, or a hydrocarbon fuel injection amount feedback correction value prevailing immediately

after startup.

4. A control system for a hydrogen addition internal combustion engine that uses hydrocarbon fuel and hydrogen gas as combustion fuel, said control system comprising:

addition ratio initial value setup means that sets a predetermined initial value for the ratio of hydrogen gas addition to the hydrocarbon fuel at startup; and

addition ratio decrease means that decreases said ratio of hydrogen gas addition to said hydrocarbon fuel when a predetermined period of time elapses after startup.

5. The control system for said hydrogen addition internal combustion engine according to claim 4, further comprising:

fuel property judgment means for judging the property of hydrocarbon fuel,

wherein said addition ratio decrease means decreases said ratio of hydrogen gas addition to a lower-limit value that is derived from the property of the hydrocarbon fuel.

6. The control system for said hydrogen addition internal combustion engine according to claim 5, wherein said fuel property judgment means judges the property of the hydrocarbon fuel in accordance with the engine speed

prevailing immediately after startup, an ignition timing feedback correction value prevailing immediately after startup, or a hydrocarbon fuel injection amount feedback correction value prevailing immediately after startup.

7. A control system for a hydrogen addition internal combustion engine that uses hydrocarbon fuel and hydrogen gas as combustion fuel, said control system comprising:

means for acquiring the amount of engine speed decrease immediately after startup, an ignition timing feedback correction value prevailing immediately after startup, or a hydrocarbon fuel injection amount feedback correction value prevailing immediately after startup; and

addition ratio increase means that increases the ratio of hydrogen gas addition to the hydrocarbon fuel when said amount of engine speed decrease, said ignition timing feedback correction value, or said hydrocarbon fuel injection amount feedback correction value is not smaller than a predetermined value.